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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PATEL, TULSIDAS C

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 12/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/784,778

Applicant(s)

FAN WONG, TSUI-TUAN

Examiner

T. C. Patel

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12, 13.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

General Status

1. Please note the **change of EXAMINER**. This is a First Action on the Merits for RCE. Claims 1 and 3-29 are pending in the case.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the two extended prongs of second adapter receivable in the plated through holes of the first adapter, as required by claim 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim 1 recites an enclosure with first and second end, a first adapter with pins and plated through holes, a second adapter with pins and two prongs, the pins of the first adapter are connected at first end of the enclosure and the pins of the second adapter are connected to the second end of the enclosure. However, the claim also recites that the prongs that are associated with the second adapter are receivable in the plated through ~~hole of the plated~~ through holes of the first adapter, this, can only be satisfied if the enclosure is bent and prongs are connected to the plated through holes (making a circular light). The intent appears to be to connect the prongs of second adapter (associated with the first enclosure) to plated through holes of a first adapter (associated with a second enclosure.)

The drawings also show collar positioned opposite the second adapter. There is no figure, which suggests that collar is positioned over a first adapter of a second light or

Art Unit: 2839

enclosure. An additional figure may be provided to show the proper connection between various parts.

Claim 29, recites pair of keys on the first adapter and also second cover comprising a pair of keyways corresponding to the pair of keys. The details of keyways are not shown in any of the figures.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Objection under 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:
- The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 37 CFR 1.71 because failing to provide an enabling disclosure.

See drawing objection.

Claim Rejections - 35 USC § 112

4. Claim 1, 3-12 and 29, are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

See drawing objection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 3-12 and 21-28 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is confusing, as the preamble suggests that it is the connector for "a resilient transparent enclosure" being claimed and not the enclosure or the flexible light source. Also, the enclosure, here is a single enclosure. The claim also recites first and second adapters and covers for them. However, as explained above, the intent appears to be to connect two flexible light sources, (recited simply as enclosures.) In addition, the prongs of the second adapter could not be connected to the plated holes of the first adapter without making circular light, which perhaps is not the intent of the claim, hence, the claim is confusing.

Claims 4 and 7, both depend from claim 2, which has been cancelled. Claim 8 depends from claim 7 and claims 11 and 12 depend from claim 4.

In claim 21, lines 6-8, it is not clear what is meant by "a pair of parallel second holes (112) is longitudinally formed on the first adapter and a pair of plated second holes (112), which are electrically extended ..." ~~In addition, claim 21, also has same deficiency of claim 1, and to satisfy the claim limitations, the light will have to be a circular light.~~ Also, in claim 28, it is not clear what is meant by "plated holes comprise elongated sockets with conductive plating inserted therein."

22 +
24,

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 13-20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lin (US 4,607,317).

Regarding claim 13, Lin, in figures 1-6, discloses a rope light connector for connecting two rope lights comprising a first connecting member 20b having a head portion (24, 25) and a tail portion (26) affixed to an end of first rope light 10a, wherein a pair of locking sockets 241, is formed on the head portion, and a pair of tubular conductors (in locking sockets 241), which are electrically extended from a pair of wires 111, 112, respectively, outwardly protruded from the first member head portion, along the locking sockets, respectively, a second connecting

Art Unit: 2839

member 20b, having second member head portion 230 and a second member tail portion 22, affixed to an end of a second rope light 10b, comprising a tubular shelter frame 232, coaxially extended from the second member head portion, wherein a pair of conductive terminals 242, which are electrically connected to a pair of wires 111, 112, inside the second rope light 10b, are outwardly extended from the second member head portion and adapted for fittingly inserting into the locking sockets 241, to engage the tubular conductors respectively for securely connecting the second connecting member with the first connecting member, so as to electrically connect the first and second rope lights, and a locking member 27, comprising a sleeve locker slidably wearing on the first connecting member 20b, and a ring shaped stopper (flange on 240) for blocking an inwardly projected end shoulder (shoulder not numbered, see figure 1), of the sleeve locker in such a slidably movable manner along the first connecting member, wherein the sleeve locker which has diameter slightly larger than the a diameter of the tubular shelter 232, has an inner thread portion for screwing with an outer threaded portion of the tubular shelter, so as to fasten the first connecting member with the second connecting member.

For claim 14, locking sockets 241 and conductive terminals 242 are discussed above, for claim 15, the tubular shelter 232 is extended from the head portion 21 of the second connecting member as seen in figure 3, and encircling the conductive terminals 242 for protection thereof, wherein the tubular shelter has a diameter slightly larger than the diameter of the first member head portion 24 (see figure 1), for fittingly receiving the first member head portion.

For claim 16, the sockets 241 and conductive terminals 242 are visible in figure 3. For claim 17, the first member tail portion 26 and the second member tail portion 22, fits over respective rope lights 10a, 10b. For claim 18, locking sockets 241 and conductive terminals 242 are discussed above.

For claim 19, the tubular shelter 232 is extended from the head portion 21 of the second connecting member as seen in figure 3, and encircling the conductive terminals 242 for protection thereof, wherein the tubular shelter has a diameter slightly larger than the diameter of the first member head portion 24 (see figure 1), for fittingly receiving the first member head portion. For claim 20, locking sockets 241 and conductive terminals 242 are discussed above.

9. Claims 13-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by Shieh (US 6,340,233)).

Regarding claim 13, Shieh, in figures 1-4, discloses a rope light connector for connecting two rope lights. It is noted that coupling end 15 of the power line is same as coupling end 61 of rope light 31 and mating end 21 of the fuse section is the same as end 302 of rope light 3b, hence the rope lights can be connected in series (see column 4, lines 20-24). The connector comprising a first connecting member having a head portion (figure 3) and a tail portion affixed to an end of first rope light, wherein a pair of locking sockets 31a, 31b (13a, 13b in figure 3) is formed on the head portion, and a pair of tubular conductors (in locking sockets), which are electrically extended from a pair of wires 14a, 14b, respectively, outwardly protruded from the first member head portion, along the locking sockets, respectively, a second connecting member 21 (similar to 301 in figure 3 for rope light 3b),

Art Unit: 2839

having second member head portion and a second member tail portion, affixed to an end of a second rope light 3b, comprising a tubular shelter frame 301c, coaxially extended from the second member head portion, wherein a pair of conductive terminals 301a, 30b, which are electrically connected to a pair of wires 24a, 24b inside the second rope light 3b, are outwardly extended from the second member head portion and adapted for fittingly inserting into the locking sockets 31a, 31b (13a, 13b), to engage the tubular conductors respectively for securely connecting the second connecting member with the first connecting member, so as to electrically connect the first and second rope lights, and a locking member 15, 61, comprising a sleeve locker slidably wearing on the first connecting member and a ring shaped stopper 18 (in figure 3) for blocking an inwardly projected end shoulder (19 in figure 3), of the sleeve locker in such a slidably movable manner along the first connecting member, wherein the sleeve locker which has diameter slightly larger than the a diameter of the tubular shelter 301c, has an inner thread portion for screwing with an outer threaded portion 301c of the tubular shelter, so as to fasten the first connecting member with the second connecting member.

For claim 14, locking sockets conductive terminals are seen in figure 3, for claim 15, the tubular shelter 301c is extended from the head portion of the second connecting member as seen in figure 4, and encircling the conductive terminals 22a, 22b; 301a, 301b for protection thereof, wherein the tubular shelter has a diameter slightly larger than the diameter of the first member head portion (see figure 3), for fittingly receiving the first member head portion.

For claim 16, the sockets 13a, 13b and conductive terminals are visible in figure 3. For claim 17, the first member tail portion and the second member tail portion fits over respective rope lights 3a, 3b. For claim 18, locking sockets and conductive terminals are discussed above.

Art Unit: 2839

For claim 19, the tubular shelter 301c is extended from the head portion of the second connecting member as seen in figure 4, and encircling the conductive terminals for protection thereof, wherein the tubular shelter has a diameter slightly larger than the diameter of the first member head portion (see figure 3), for fittingly receiving the first member head portion. For claim 20, locking sockets and conductive terminals are discussed above.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1 and 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (US 4,607,317).

Lin, in figures 1-6, discloses a connector for connecting two decorative lights encased in a transparent enclosures, the connector comprising a first adapter 24, 25, 26, 27 adapted to be engaged with a first end of the enclosure 10a, a combination male-female connector 24, provided with two first pins 242, adapted to be electrically connected with multiple light sources inside the enclosure 10a, and two plated through holes 241, and a resilient cover 25 outside a joint between the combination male-female connector and the first end of the enclosure. A second adapter 21, 22, 23, adapted to be engaged with a second end of enclosure 10b, having male connector 21 provided with two second pins 211, 212, two extended prongs

Art Unit: 2839

242, the two prongs being selectively receivable in plated through holes 241 and a second cover 23 formed on a joint between the male connector 21 and a second end of enclosure 10b. A collar 27 is also disclosed, which is slidably mounted around the first adapter 24, and having a through hole to allow extension of second cover 232, threads of collar 27 fits over threads 232, when assembled, whereby length of the decorative light 10a can be extended by connection with a second light fitted 10b with a second cover 23.

In so far as recitation of 'covers being injection molded' is concerned, though the reference does not specifically state the covers made by injection molding, it is obvious to make PVC articles by injection molding, as it is well known in the art to make such article by injection molding.

For claims 3, 4/1, 5, 6, 7/1, and 8-12, the collar is disclosed in figure 3 and plug 60 with a blind hole is connected to enclosure 10b. Although the threaded part is not shown, in order to couple the plug on end of the enclosure, it will require threads (similar to shown in enclosure 1a). The Examiner has interpreted claims 4 and 7 to depend from claim 1, rather than claim 2, as it is now.

12. Claims 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (US 4,607,317) in view of Law (US 5,669,789).

Regarding claim 21, Lin, in figures 1-6, discloses a first decorative light 10a having multiple light sources connected in series and encased in a resilient and transparent enclosure 10a with a second decorative light 10b having multiple light sources, connected in series and encased in a second resilient transparent enclosure, comprising a first adapter having a male-

Art Unit: 2839

female connector 24, and a first resilient transparent enclosure 10a affixed to an end of the first decorative light, wherein a pair of parallel holes 241 is longitudinally formed on the first adapter, which are electrically connected to a pair of wires 111, 112, inside the first decorative light, a second adapter 21, having a male connector 212, and affixed to the second enclosure 10b, and a pair of prongs 242 electrically connected to the wires 111, 112 in the second decorative light, the prongs are connected to the holes 241 to connect two adapters and thereby connect the two decorative lights. In addition, a locking means comprising a collar and a flange 251, the locking means slidably moving on the first adapter. Outer threads 232 on the second cover 25 and inner threads on 27 are connected to connect the two decorative lights. However, Lin '317 does not disclose holes 241 as plated through holes. Law, in figure 7, discloses an arrangement with a part 71 having plated through holes 71B for electrically connecting pin 50.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make holes 241 of Lin as plated through holes as taught by Law, so that mating pins can be easily electrically connected.

For claim 22, plated holes of modified adapter would be sockets, for claim 23, Lin discloses second cover 23 as integrally extended from the second adapter 21, the second cover also encircles the prongs 242, and also the second cover has diameter larger than the diameter of the first adapter 24 (see figure 1). For claim 24, the plated holes of the modified socket are elongated sockets. For claim 25, the tubular covers 26, 22 fits over the respective lights. For claim 26, the plated holes of the modified socket are elongated sockets. For claim 27, Lin discloses second cover 23 as integrally extended from the second adapter 21, the second cover

Art Unit: 2839

also encircles the prongs 242, and also the second cover has diameter larger than the diameter of the first adapter 24 (see figure 1). For claim 28, plated holes are discussed above.

13. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (US 4,607,317) in view of Blanchenot (US 3,008,116).

As discussed above, Lin satisfies the limitations of claims 1, 3-20. However, Lin does not disclose a pair of keys and a pair of keyways on the mating parts. Blanchenot, in figure 1, discloses two mating parts with part 12 having a pair of keys at 160 and part 14 having a pair of keyways at 56.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the mating parts of Lin and provide key on one part and keyway on the mating part, so that parts can be met in desired orientation only.

14. The prior art made of record and not relied upon is considered pertinent to applicant's invention. Tsui (US 6,394,623) is cited for disclosing male-female connector for a rope light.

Applicant also should consider these references in response to this office action. Should issue arise concerning the rejection presented above, these references may be relied upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

Response to Arguments

15. Applicant's arguments with respect to claims 1, 3-12 have been considered but are moot in view of the new ground(s) of rejection.

Please note the change of Examiner. Once the claims are put in condition for allowance, the Examiner will consider the interference part of the prosecution.

Art Unit: 2839

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. C. Patel whose telephone number is (703) 308-1736. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (703) 308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1736.



T. C. Patel
Primary Examiner
Art Unit 2839

tcp
December 20, 2002